

DERWENT-ACC-NO: 1973-25950U  
DERWENT-WEEK: 197319  
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TITLE: Sintered powder compacts - iron based self  
de-oxidising material with  
high strength

PATENT-ASSIGNEE: GLEASON WORKS[GLEA]

PRIORITY-DATA: 1971US-0190353 (October 18, 1971)

PATENT-FAMILY:

PUB-NO	PUB-DATE	LANGUAGE
PAGES	MAIN-IPC	
DE 2250423 A		N/A
000	N/A	
DE 2250423 B	March 13, 1975	N/A
000	N/A	
FR 2156762 A		N/A
000	N/A	
GB 1385992 A	March 5, 1975	N/A
000	N/A	
JP 48049610 A		N/A
000	N/A	

INT-CL (IPC): B22F003/00; C22C033/02

ABSTRACTED-PUB-NO: DE 2250423A

BASIC-ABSTRACT: High strength, self de-oxidising sintered alloy compacts based on iron powder of 98+% Fe content can be made by induction sintering of a cold formed compact (1400-4200 atm. pressure). The material from which the compact is formed contains up to 0.6 wt.% graphite which combines with oxygen present as oxides of Fe to form Co which diffuses out and provides a protective layer against further re-oxidation during the subsequent forging processes which take place immediately after sintering. Material with density very close to the theoretical can be produced with very high strength.

TITLE-TERMS:

SINTER POWDER COMPACT IRON BASED SELF DE OXIDATION MATERIAL  
HIGH STRENGTH

DERWENT-CLASS: M22 P53

CPI-CODES: M22-H03C;